DOCUMENT RESUME

ED 332 709 IR 053 592

AUTHOR Goldstein, Morris
TITLE Online 1990.
PUB DATE 90
NOTE 9p.; Paper presented at the National Online Conference (Washington, DC, November 5-7, 1990).
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Computer Networks; Cost Estimates; Databases; Futures (of Society); *Information Technology; Marketing; *Online Systems; *Optical Data Disks; *Systems Analysis; *Technological Advancement; Telecommunications

ABSTRACT

This paper examines the co-existence of online and CD-ROM technologies in terms of their existing pricing structures, marketing strategies, functionality, and future roles. "Fixed Price Unlimited Usage" (FPUU) pricing and flat-rate pricing are discussed as viable alternatives to current pricing practices. In addition, it is argued that the marketing of CD-ROMs as a separate vehicle to isolated market niches sets the stage for inferior service. Examples are presented which demonstrate that CD-ROM and online technologies can be successfully integrated, and innovation and flexibility are cited as the major determinants in the success or failure of information products. Concluding the speech are predictions for the Information Age which include: (1) the growth of time-sharing services; (2) foreign competition; (3) government funded super networks; (4) the production of machine readable data; (5) the merging of database producers; and (6) the continued growth of online and CD-ROM technologies. (MAB)

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Online - 1990

by

Morris Goldstein

Information Access Company
362 Lakeside Drive
Foster City, California 94404

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Paper presented at the National Online Conference
Washington, DC, November 5-7, 1990

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ONLINE - 1990

Good afternoon. I hope that you've enjoyed your lunch - and I'll try not to say anything that will affect that!

I found it to be very interesting that Jeff changed the name of the conference to include CD-ROM. I believe there are now more than 800 titles currently available. But I probably would have selected a broader title - like Info '90, or Teenage Mutant Ninja Searcher Info Exposition.

Jeff is right on because online and CD-ROMs are linked. These technologies, however, are a prelude to larger challenges.

As you know, online is now 25 years old and is functionally the same as it was at inception - command driven, query-based and text-oriented. It is vulnerable to changing technology and to changing requirements within organizations. It looks as if online will become an in-house function in larger organizations - integrating data that the organization wants - not what vendors may choose to provide and combining it with data that they already have in-house.. The inherent inflexibility of todays online systems may render them ineffective at satisfying their customers needs. A new variety of in-house options will compete for online revenues - with perhaps CD-ROMs on the low end - and more sophisticated systems as you move up.

Today's CD-ROM products have failed to achieve the various revenue and sales projections because they are mere clones or emulations of online or even worse, printed properties. With minimally acceptable interfaces, the most that we have done is to bang them against the slow and relatively inefficient storage devices.

Jeff has asked me to talk about the co-existence of online and CD-ROM. The name of this conference not withstanding, I began to wonder - why not discuss the co-existence of books and online - or microfilm and online.

What is it that makes us ponder these issues?

There are several aspects to be considered. Probably the first are cost and price issues. Can users reduce their costs by using CD-ROM and maintain their effectiveness? Can IPs deliver CD-ROMs and maintain financial viability?

Second, is CD-ROM creating new niches or market sectors with new purchasing parameters? Third is functionality. Can CD-ROMs perform? And fourth, how must we consider the future?

Let's go through the cost/price issues first. One can hypothesize that if the online vendors would have been more creative, CD-ROM would fail to exist as a separate and distinct vehicle. (Exhibit #1) How would that work? Well let's say that an online vendor with lots of databases would price their service as follows:

1. Each database that a user elects to subscribe to, pays a fixed price per year - say $5000 - per database - for unlimited usage. That is, the first time that you log-on to a database, your invoice would arrive for $5,000, the charge to use that database for twelve months - and

2. Every user can select a menu-driven or command-based interface to access these databases.

Telecommunication costs not withstanding, a service like this meets the needs of those markets whose requirements include Fixed Price Unlimited Usage. From a distributor's perspective, an initial look might lead us to believe that they'd go broke. The users that spend $100K on a database now would only pay $5000. If the 80-20 rule holds, 20% of the users would get a price break. In fact anyone who uses more than $5000/year of each database, gets a deal.

Accounting becomes easy. Online users would do more research on a database before logging on to it. Would the vendors and producers go broke?

My first thought goes to the classic question: are we in the train business or the transportation business? Should libraries charge patrons based upon the number of chuckles they enjoyed from a novel?!

I must say that I've heard more from vendors about Fixed Price Unlimited Usage (FPUU) contracts in the last few months than I've heard in years past - probably combined. There are several factors at work in the marketplace that are responsible.

1. The existence of CD-ROM at fixed prices has become a viable alternative to certain

classes of users. It has demonstrated that market sectors exist for information sold on this basis.

2. New marginal users for CD do not have unlimited resources. In order to convince them to participate, limits must be placed upon their exposure.

3. More end-users within organizations are capable and desirous of searching directly. Yet "turning them loose" at the online spigot seems to be imprudent.

4. Market share turf wars have emerged amongst vendors. Whereas vendors tended to grow independently of each other in years past, there appears now to be a need to "lock up clients" and take shares away from other vendors in order to achieve ones own objective.

I'm sure that there are others - but one thing is clear - FPUU will continue to become more a part of our every day vocabulary.

Would flat-rate online pricing draw more users? Flat-rate pricing is on target where budgets must be met. An annual fixed price is appropriate for public and academic libraries, and departments with a limited budget. Anyone who doesn't like the "per drink" charges or variable pricing schemes would be forced to consider this new pricing scheme. CD-ROM subscribers would have to ponder the benefits of flat-rate deals especially if multiple-terminal access were available as a replacement to at least small LANS.

CD-ROM as a separate vehicle perhaps exists because database producers and vendors have not been creative in any of their pricing structures - especially to secondary markets.

To offset this concern of lost revenues, several producers and vendors separate market sectors. Some produce CD-ROMs that can only be sold to schools or public libraries. Others restrict their sales units to selected market sectors defined by size of staff or book budget. Still others will only produce CD-ROM products that are designed not to compete with online. The CD-ROM publisher twiddles with data currency, backfile, search engine or some other restrictions. Tactics like these do separate various markets, but set the stage for service that is inferior.

Since the demand curve for the databases provided by IPs is fairly traditional - a few customers will spend a lot for the data and at focal points relatively more will purchase the data at decreasing prices - down to many who will want it at very low prices . The objective of publishing electronically is to provide a series of products at different prices/features etc. to satisfy each focal point or market sector. Only productlines have the opportunity to satisfy normal demand curves.

In general, online searchers have not been very aggressive at integrating CD-ROMs into their environments, although some like AT&T's have been pace-setters. Online searchers are sometimes too rigid and reject CD technology even though it may be possible to reduce average search costs. The traditional behavior prevails. We all know that some portion of all online searching that we conduct could be shifted to CD-ROM. In early research that we did, at IAC we learned that our microfilm ROMs could answer a large majority of actual online queries. The lack of print capability from our ROM film hurt its acceptance in the online world at the same time ROMs became the standard in the public and academic library markets.

O-L environments usually do not like to make the fixed cost decisions for CD - but this is changing. They also tend to appreciate the ability to change back services to their departments - a feature well-supported in online.

Examples

San Francisco General's use of Medline CD

I don't think CD-ROMs will be ignored in the online markets. Let me give you one example where an online environment developed an application for CD-ROM in conjunction with online. At a medical research environment that provides among other things document delivery to an entire staff of researchers, researchers verify the citation - probably developed from an online search - via CD-ROM before ordering the article. This has saved both time and money by reducing errors. With the clock ticking, online verification was perceived as too costly. In this example, the environment found new application for CD within an online environment.

From another perspective, Ann Mintz of Forbes concludes that CD-ROM saves Forbes a significant amount of money - but that they will continue to use online for additional currency and if a specific search requires a command structure not available on CD software. Writers for the magazine use CD all the time and stand in line to wait to

use it.

The use of CD at Forbes has had two additional effects. First, it increases the expectations of the writers. They anticipate being able to obtain a significant amount of data on every subject. And secondly, and consistent with the first, the nature of the questions asked of the professional staff is different. Since the writers can do all simple searches, they save the tough ones for the pros.

Hence in Ann's environment - expand the level of service, save money and challenge the professionals!

Still another example

As you know, IAC's parent company Ziff Communications owns a series of PC magazines. By using our Computer Database, our ad sales reps are well informed about activities within an existing customer's - or a new prospect's company. Not every rep has embraced this information tool, of course. But I know of several cases where the president of Ziff, an avid user of our products in CD-ROM, knew more about a prospect during a joint sales call than the account's representative did! As you can imagine, usage of computer databases rises each week in our organization. Well, it's one way to build awareness of our products at headquarters in New York.

Another example

Loma Linda Article - see copy attached

Software - as you might image is another way to differentiate products. For years, IAC's Infotrac has been unique in its design and mission to service untrained information requestors. People who use libraries
Todays new I-T software includes expanded capabilities - including Boolean logic that has long been requested. But even I-T functionality is easy to replicate on an online environment.

<overhead>

Each of these examples shows that the real challenge will come from integrating technologies.One important factor is that storage density will continue to increase. IBM labs recently reported the ability to increase 550 megabytes to two gigabytes. Local computing power - both desktop and centrally-located environments will increase by orders of magnitude every two years. Imaging and graphical interfaced with the ability to query and select information sources will proliferate "Groupware" - that which is needed for a group to do their work will enable the efficient allocation of information resources. The end result of such innovation will be increasing market demand for innovation and flexibility up and down the information chain.

Now how do the current players fit into the future?

1. Time sharing services will come under competitive pressure from technology-driven newcomers, the datasaurus rexes that dominated yesterday may not survive tomorrow. Today's market leaders may find themselves retreating into a specialized, small niche.

2. Foreign as well as domestic time sharing companies will be threatened by countries which cooperate without concern for short-term profitability. We may see some form of information dumping.
Watch Japan.

3. Consumer services are vulnerable to government funded super networks (perhaps using the much maligned UNIX services - such as BITNET and the Well.) An ISDN data highway will, perhaps, make the super network a reality.

4. The U.S. government - like it or not - will produce increasing amounts of machine readable data. These data will be introduced to various distribution channels as required by the user community and place tremendous downward pressure on prices.

5. Database producers are also likely to be endangered as well. Since they are middle persons between information producers and distributors, the alarming merger-and-acquisition fever may do away with many small- and medium-sized producers.

The ones who will survive will be those who

produce index and distribute their own material or who have a proprietary data stream.

Well, what is the prognosis? Nothing will occur quickly.

6. The number of users of online and CD-ROM data will continue to grow, so far the industry has taken off like a DC-3, not a 747 but we're going to get tot the ultimate destination - almost universal usage of electronic information.

There's time to plan and to chart courses for all of us.

We have watched how information distribution has changed from a top-down process to a more horizontal distribution mechanism.

Consolidation will continue producing a handful of big players, a host of preferred subcontractors, a wealth of product choices and continued product improvements.

New competitors will emerge from places that we currently don't think of as information providers. Time sharing will be government sponsored with countries or groups of countries dominating the scene.

The present, near future and distant information ideas. Last year, we attended Online '89. This year Online/CD-ROM'90. What will it be called in 2000 or 2010?

Thanks.

MG:bj